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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/440,213

11/15/1999

I-SHIN ANDY WANG

ST9-99-044

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10/17/2005

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EXAMINER

SHAH, SANJIV

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/440,213

Applicant(s)

WANG, I-SHIN ANDY

Examiner

Sanjiv D. Shah

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-15, 17-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15, 17-25 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/3/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 7/14/2005.
2. Claims 6, 16, and 26 are cancelled. Claims 1-5, 7-15, 17-25, and 27-30 are pending in the case. Claims 1, 11, and 21 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-5, 7-9, 11-15, 17-19, 21-25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popp et al. (Pub. No. US 2002/0133637 A1 – filed on 08/1995) in view of Prinzing (USPN 6,496,202 B1 – filed on 06/1997, “previously cited by the Examiner in PTO-892 mailed on 3/11/03”).**

Regarding independent claim 1, Popp discloses:

A method for generating an interface to elements in a document, wherein the document defines a relationship of the elements and at least one attribute for each element (Popp on page 1, paragraph 0014: teaches each element can have attributes that specify properties of the element), comprising:

providing a mapping indicating at least one element in the document to map to a class (Popp on page 2, paragraphs 0026-0027: teaches one-to-one mapping between each HTML element and object classes); and

generating a class implementing methods for at least one element from information provided on elements in the document (Popp on page 2, paragraphs 0026-0027 and page 5, paragraphs 0069-0070: teaches class of objects are defined for each HTML element; an object tree is generated based on the HTML elements identified) and the mapping, wherein the at least one indicated element in the document for which the class is generated can be accessed and affected by the methods implemented in the class (Popp on page 2, paragraphs 0026-0027 and page 3, paragraph 0050: teaches each object class can include methods to manipulate the HTML element within an HTML document).

However, Popp does not explicitly disclose “an interface to generate for the class and defines methods to access the element for which the class is generated”.

Prinzing on col. 8, lines 9-19 teaches an object is a programming unit that groups together a data structure (instance variables) and the operations (methods) that can use or affect that data and col. 9, lines 57-66 and col. 11, lines 35-63 teaches element is implemented as an object that encapsulates instance variables and methods; wherein when the element is queried, the method is invoked (col. 11, lines 10-12). Further, Prinzing on col. 10, line 64 – col. 11, line 2 teaches an interface is used to define the Application Programming Interface (API) to be implemented by an object

class. Document is an interface that is implemented by each of the various types of documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Prinzing into Popp to provide an interface to be implemented by an object class and to use the methods associated with an element to be invoked to affect the document, as taught by Prinzing, incorporated into the mapped element with an object class, as taught by Popp, in order to facilitate the editing of the contents within the document.

Regarding dependent claim 2, Popp discloses:

wherein the mapping includes a class name for each indicated element (Popp on page 2, paragraph 0026: teaches mapping between object class and element and on page 4 paragraph 0063: teaches name of object class are corresponded to the HTML element).

Regarding dependent claim 3, Prinzing discloses:

a data type for at least one attribute of the indicated element (Prinzing on col. 9, lines 33-36 and col. 12, lines 1-2 teaches data type as an attribute of the input element).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Prinzing into Popp to provide an interface to be implemented by an object class and to use the methods associated with an element to be invoked to affect the document, as taught by Prinzing, incorporated into the mapped

element with an object class, as taught by Popp, in order to facilitate the editing of the contents within the document.

Regarding dependent claim 4, Popp discloses:

wherein the relationship of the elements in the document are arranged in a hierarchical relationship, and wherein the methods in the at least one class generated for the element allow a user to directly access and affect the element (Popp on page 2, paragraph 0024: teaches HTML is a hierarchical language of elements and on page 2, paragraphs 0026: teaches each object class mapped to the HTML element can include methods to manipulate the HTML element within an HTML document).

Further, Prinzing an object within the data structure can use methods to affect the data (on col. 8, lines 9-19) and wherein when the element is queried, the method is invoked to affect the document (col. 11, lines 10-12).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Prinzing into Popp to provide an interface to be implemented by an object class and to use the methods associated with an element to be invoked to affect the document, as taught by Prinzing, incorporated into the mapped element with an object class, as taught by Popp, in order to facilitate the editing of the contents within the document.

Regarding dependent claim 5, Popp discloses:

accessing the at least one element in the document indicated in the mapping, wherein one class is generated for each accessed element (Popp on page 4, paragraph 0062: teaches application includes objects; wherein the objects corresponds to the

HTML elements that define a WWW page. Objects are arranged in a tree structure that corresponds to the hierarchical structure of the HTML elements).

Further, Prinzing teaches hierarchy of classes can be defined (on col. 8, lines 39-51) and teaches using application program interface (API) to interface and implemented by the object class (col. 10, line 64 – col. 11, line 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Prinzing into Popp to provide an interface to be implemented by an object class and to use the methods associated with an element to be invoked to affect the document, as taught by Prinzing, incorporated into the mapped element with an object class, as taught by Popp, in order to facilitate the editing of the contents within the document.

Regarding dependent claim 7, Popp discloses:

wherein the methods implemented in the class include at least one method that is a member of the set of methods comprising: adding an instance of the element, inserting an instance of the element at a location in the document with respect to other instances of the element in the document, and removing an instance of the element from the document (Popp on page paragraph 0061 teaches an object class defines instance variables to store information associated with the HTML element; on page 5, paragraph 0075: teaches for each element in the HTML template, an instance of the corresponding object class is instantiated; on page 7, paragraph 0102: teaches the NSWform object class should be instantiated and inserted within the SELECT_FORM group object).

Regarding dependent claim 8, Popp discloses:

further comprising defining extended attributes of at least one element and instantiating the class for the at least one indicated element from the defined extended attributes (Popp on page 5, paragraphs 0075-0076: teaches element attribute information is stored in the object's instance variables).

Regarding dependent claim 9, Popp discloses:

wherein the defined extended attributes define further methods for the class (Popp on page 3, paragraph 0050: teaches each object class can include methods to manipulate the HTML element and on page 5, paragraph 0064: teaches an object class may have a method that varies the display characteristics of the HTML element).

Regarding claims 11-15, 17-19, 21-25, and 27-29, the limitations of claims 11-15, 17-19, 21-25, and 27-29 are a system and an article of manufacture for processing the method of claims 1-5 and 7-9 and are rejected under the same rationale.

5. **Claim 10, 20, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popp and Prinzing as applied to claims 1-5, 7-9, 11-15, 17-19, 21-25, and 27-29 above, and further in view of Skinner et al. (USPN 6,085,198).**

Regarding dependent claims 10, 20, and 30, Popp and Prinzing discloses the invention substantially as claimed as described *supra*. However, Popp does not explicitly disclose "serializing defined extended attributes into memory, wherein the defined extended attributes are capable of being deserialized from the memory".

Skinner et al. (Skinner on co. 10, line 53 – col. 11, line 16: teaches serializing objects with attributes names and types and which can later be deserialized.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provide a way to serialize objects with attribute names and types and also capable deserializing object, as taught by Skinner, incorporated into the object of Popp and Prinzing, in order to provide a useful mechanism for object persistence and transmission.

Response to Arguments

6. Applicant's arguments filed 7/14/05 have been fully considered but they are not persuasive.

Applicant argues that the cited references teaches mapping but does not teach or suggest how that mapping is used to generate the class for elements in the document. Examiner disagrees. Specifically Prinzing does teach generating a class as shown in fig 7, element 708 and described above. As per applicant's argument of references failing to teach how that mapping is used to generate the class for elements in the document, it is pointed out that claimed invention does not specifically claim, "**How** that mapping is used to generate the class for elements in the document".

Applicant also argues "Pop does not teach using a mapping data structure indicating a mapping of elements to a class and interface and information on the elements in the document to generate a class and interface implementing methods for document elements."

Prinzing does disclose the feature “an interface to generate for the class and defines methods to access the element for which the class is generated”, on col. 8, lines 9-19 and col. 9, lines 57-66 teaches an object using methods to affect data within a document; wherein when an element is queried, the method is invoked (col. 11, lines 10-12).

Further, Prinzing on col. 10, line 64 – col. 11, line 2 teaches an interface is used to define the Application Programming Interface (API) to be implemented by an object class.

As per mapping data structure, the argued feature is not claimed.

Referring to claims 2, 12, and 22, Applicant argues that Popp does not teach mapping as claimed. Examiner disagrees. As clearly recited in body of rejection Popp does teach that feature.

Applicant appears to argue individual references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).


7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanjiv D. Shah whose telephone number is 571-272-4104. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta, can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sanjiv D. Shah
Primary Examiner
Art Unit 2627

S. Shah
March 31, 2005